

REMARKS/ARGUMENTS

Reconsideration of this application is requested. Claims 17-32 and new claim 36 are in the case.

I. ELECTION/RESTRICTION

The election of Group I, namely claims 17-32, is hereby affirmed. Claims 33-35 have been cancelled without prejudice to the possibility of pursuing that subject matter in a separate divisional application.

II. SPECIFICATION

The title has been objected to as allegedly not descriptive. In response, a new title is presented herewith.

III. CLAIM OBJECTIONS

Claims 24 and 28 have been objected to for the reasons detailed in paragraph 3 on page 2 of the Action. In response, those two claims have been amended to correct the informalities noted by the Examiner. Withdrawal of the claim objections is now respectfully requested.

IV. THE 35 USC 112, FIRST PARAGRAPH, REJECTION

Claims 17-32 stand rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was allegedly not described in the specification in such a way as to enable one skilled in the art to make and/or use the invention. In particular,

the Examiner objects that the specification does not reasonably provide enablement for the variable "n" in the compound of claim 17 to be any integer.

In response, and without conceding to the merit of this rejection, n has been amended to read "n has a value which is half the number of molecules of compound I which assemble into the micelle of compound I in water". Thus, n is defined as being half the number of molecules of compound I which assemble into a micelle because compound IV effectively comprises two of the molecules of compound I. Thus, if there are eight monomer units of Formula I in a micelle then, in the polymer, there are four units of structure IV.

Support for the amendment in relation to the value of n appears, for example, at page 2, beginning at line 19 of the specification which refers to aggregation of compounds of general formula I, and at page 2, beginning at line 30 which refers to micelle formation. Additionally, Figures 1-7 relate to analyses to characterize the micellar structure and this is discussed in the results at page 11, beginning at line 26. It will be noted that, in the preparation of the polymer IV as described, a micellar structure is initially formed (which in the case of the SbQ compound studied as described at page 10, line 22 et seq, comprises eight monomer units in a stack, for example as shown in Figure 2). It is when the monomers are in this stacked arrangement that polymerization is carried out, in view of the bulky nature of the aryl groups on opposite sides of the carbon-carbon double bond of compound I. It is difficult to envisage how the compound I could be caused to polymerize without forming a stacked structure as shown in Figure 2.

The formation of micelles is discussed in the attached document "Fundamental Principles of Membrane Bio-physics". The formation of micelles and particularly the number of molecules of any particular compound which form into the micelles is determined by thermodynamic considerations. As described at page 2.3, second paragraph, two factors are involved: first, the hydrophobic effect causing the non-polar portion of the molecules to be separated from water and sequestered in the interior of the structure; and secondly, interactions between the head groups to determine how closely the molecules are packed. It will be noted from the arrangement at Figure 2 of the present application that the hydrophobic carbon-carbon double bonds are arranged adjacent one another in the center of the stacked arrangement, with the more polar groups on the outside.

Based on the above, it is believed that the specification properly describes the claimed invention in accordance with the statute. Withdrawal of the outstanding 35 U.S.C. §112, first paragraph, rejection is respectfully requested.

V. THE 35 U.S.C. §112, SECOND PARAGRAPH, REJECTION

Claims 17-32 stand rejected under 35 U.S.C. §112, second paragraph, as allegedly indefinite, for the reason that "n" has an infinite value. In response, the definition of "n" has been amended as discussed above in relation to the outstanding 35 U.S.C. §112, first paragraph, rejection. Withdrawal of the 35 U.S.C. §112, second paragraph, rejection is therefore believed to be in order, and is requested.

VI. THE ANTICIPATION REJECTIONS

Claims 17-22, 25 and 26 stand rejected under 35 U.S.C. §102(b) as allegedly anticipated by British Patent 1211193 to Williams et al. That rejection is respectfully traversed.

As now claimed, the formulation of the present invention comprises a first polymeric compound and a second compound. The first polymeric compound is selected from (A) a compound prepared in a method comprising the steps as set forth in sub-paragraph (a) and (b) of claim 17; or (B) a compound of the Formula IV as set forth in claim 17 in which "n" has a value which is half the number of molecules of compound I which assemble into a micelle of compound I in water.

Williams does not disclose the formulation as now claimed. Williams relates to polymers predominately comprising the recited repeat units. There is no disclosure of the repeat units of Formula IV as recited in claim 17 of the present application. Moreover, Williams does not disclose a polymeric material having the value of "n" as now recited in claim 17. The process described by Williams is not the same as that of the present invention, which provides further reason to believe that the polymeric material as claimed in the present application would not be produced according to the Williams process.

Based on the above, it is clear that Williams does not anticipate (or suggest) the invention as now claimed. Reconsideration and withdrawal of the outstanding anticipation rejection based on Williams are respectfully requested.

Claims 17-26 stand rejected under 35 U.S.C. §102(b) as allegedly anticipated by Li et al. That rejection is respectfully traversed.

As recognized by the Examiner on page 4 of the Action, Li describes a dimer, namely a material comprising two monomer units. In contrast, the invention as now claimed in the present application is a polymeric material having a specified "n" value. As Li discloses a photodimerization reaction in **solid media**, micelles will not be formed in the manner described according to the present invention. Moreover, given that the monomer in Li is present at a very low concentration and is heavily diluted by the other materials in the mixture, it would not have been possible for anything other than a dimer to be formed – in particular, more than two monomer units would not react with one another. Since there is no driving force to the formation of a stacked arrangement in Li (it is not seen how this could possibly form), there is no driving force to the production of the specific material of Formula IV recited in the claims of the present application, wherein moieties B are pendent from adjacent carbon atoms – that is, the polymer has an –A-B-B-A repeat unit.

In light of the above, it is clear that Li does not anticipate the invention as now claimed. Withdrawal of the outstanding anticipation rejection based on that reference is accordingly respectfully requested.

VII. NEW CLAIM

New claim 36 is presented for consideration. This claim is based on claim 17 with a modified wherein clause at the end of the claim. The amendment is directed to the SbQ compound referred to in the analyses on page 10 at line 21. In particular, it will be noted from page 12, line 17 that the aggregate stack consists of about 8 monomer units. These monomer units are effectively equivalent to the compound of Formula I.

EAGLAND et al
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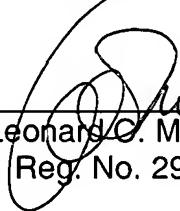
Since two such monomer units form the repeat unit of Formula IV in claim 17, the claim defines that "n" is effectively 8 divided by 2 (namely "4"). No new matter is entered.

Allowance of the application is awaited.

Respectfully submitted,

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Attachment: Fundamental Principles of Membrane Biophysics; IDS; PTO-1449